On the expression of negation in Mandarin Chinese and Spanish

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Feifei Li
University of Electronic Science and Technology of China,
China
feifeili@uestc.edu.cn
https://orcid.org/0000-0001-5175-0379

Abstract:

A macroparametric division between Double Negation (DN) and Negative Concord (NC) languages has been postulated in the literature on negation. Mandarin Chinese and Spanish have been classified as a DN and a NC language respectively. However, the interpretation of the expression of negation in NC versus DN languages is not clear-cut. This study aims to introduce and compare the interpretation of multiple negative expressions, fragment answers to negative questions and two experimental studies in these two languages. The results from the comparison show that unexpected interpretations of double negation and single negation are possible in both Mandarin Chinese and Spanish respectively under certain prosodic and gestural conditions. Accordingly, it allows us to question the parametric division between DN and NC languages.

Keywords: negation, Mandarin Chinese, Spanish.

Resumen:

En la literatura sobre la negación se ha postulado una división macroparamétrica entre las lenguas de doble negación (DN) y de concordancia negativa (NC). El chino mandarín y el español han sido clasificados como lenguas de DN y NC respectivamente. Sin embargo, la interpretación de la expresión de la negación en las lenguas de NC frente a las de DN no está clara. Este estudio propone introducir y comparar la interpretación de las expresiones de negación múltiple, las respuestas fragmentarias a preguntas negativas y dos estudios experimentales en estas dos lenguas. Los resultados de la comparación muestran que son posibles interpretaciones inesperadas de la doble negación y de la negación simple tanto en chino mandarín como en español, respectivamente, bajo ciertas condiciones prosódicas y gestuales. En consecuencia, nos permite cuestionar la división paramétrica entre las lenguas DN y NC

Palabras clave: negación, chino mandarín, español.

摘要：

传统类型学根据否定表达的不同将语言分为双重否定语言和否定一致语言。汉语普通话和西班牙语分别被归类为双重否定语言和否定一致语言。然而，双重否定语言和否定一致语言中关于否定的释义并不清晰。本研究旨在介绍和比较汉语普通话和西班牙语中多个否定表达的释义、否定问题片段回答的释义以及两个实验研究。比较结果表明，在一定的韵律和肢体语言条件下，汉语普通话和西班牙中分别出现了单重否定和双重否定的释义。因此，关于双重否定和否定一致语言的参数划分需要进一步研究。

關鍵詞：关键词，否定，汉语普通话.

INTRODUCTION

Negation has been classified in the literature into two different typologies (i.e., Double Negation and Negative Concord) when multiple negative expressions co-occur within the boundaries of a single clause (Biberauer & Zeijlstra, 2012; Giannakidou, 1998, 2006; Van der Wouden, 1994; Zeijlstra, 2004; and others).

In propositional logic, double negation (henceforth DN) is related to double negation elimination (Law of Double Negation, Horn 1989), by which if --p is true, then p is true (i.e., --p # p), and conversely, if p is true, then it is not the case that the statement is not true (i.e., p#--p). In so-called double negation languages, such as standard English, modern Dutch and modern German, the Law of Double Negation is expected to

apply, in such a way that, when multiple negative expressions co-occur within the boundaries of a simple clause, a positive reading is inferred. This is due to the fact that one of these elements cancels out the meaning of the second one, yielding an affirmative interpretation. According to the examples below:

(1) a. Mary will *not* not show up (= Mary will show up.) (Standard English)

(example from Zeijlstra 2004:58, ex. (65))

b. *Nobody* will *not* be touched by this movie (= Everybody will be touched by this movie.).

(example from Zeijlstra 2004:59, ex. (67a))

In so-called negative concord (henceforth NC) languages there are multiple ways through which the speaker can achieve negation. Using the marker of sentential negation is one way. Another is through the use of certain indefinite expressions, termed n-words (Laka 1990), such as French *rien*, *personne*, and Spanish *nadie*, *nada*, etc. The properties of n-words are different from those of the negative quantifiers in DN languages. N-words are indefinite expressions that need to be used together with other negative operators within a sentential domain in order to express negation in a sentence in NC languages. According to the examples below:

(2) *No* hay nada.

not have nothing

'There is nothing.'

In the traditional literature, Mandarin Chinese (henceforth MC) has been characterized as a DN language; Spanish has been classified as a NC language. However, certain conditions have been found to lead to a shift from a single negation (henceforth SN) reading to a DN reading in NC languages and a DN reading to a SN reading in DN languages (Blanchette, 2017; Blanchette et al., 2018; Espinal & Prieto, 2011; Espinal et al., 2016; Huddlestone, 2010; Puskás, 2012; Thornton et al., 2016; Tubau, 2008; Zeijlstra, 2010).

This study investigates the expression and interpretation of negation in Mandarin Chinese and Spanish. It aims to achieve a better understanding of the interpretation of multiple negative expressions and fragment answers to negative questions in these two languages. Moreover, it aims to compare two experimental studies in MC and Spanish to determine whether these two different typological languages have a robust empirical basis in light of different linguistic and non-linguistic conditions in common. Consequently, this research questions the parametric division between DN and NC languages.

Negative expressions in Mandarin Chinese vs. Spanish

In MC, negation is expressed by meaning of several negative expressions. Sentential negation is usually expressed by means of the negative sentential marker 没有 *méi(y#u)* 'not' and 不 *bù* 'not' (Li & Thompson, 1981; Lü, 1999), as illustrated below:

(3) a. Tā *méi(y#u)* qù gōngyuán.

(s)he not.have go park

'(S)he didn't go to the park.'

b. Tā *bù* qù gōngyuán.

(s)he not go park

'(S)he don't/won't go to the park.'

不 *Bù* and 没（有） *méi(y#u)* differ in several aspects[1]. The basic difference between 不 *bù* and 没（有） *méi(y#u)* is that 不 *bù* is not limited by the time frame (Li & Thompson 1981). Thus, 不 *bù* can be used in the present, future or past, while 没（有） *méi(y#u)* is most commonly used for negating in the past. In (3a), 没（有） *méi(y#u)* is used in the past, while in (3b), 不 *bù* is used in the sentence in the present/future. Another difference is that 不 *bù* is used to negate a judgement or a subjective will (Liu et.al, 2010; Lü, 1999), while 没（有） *méi(y#u)* is used to negate the occurrence of an action. In (3a), 没（有） *méi(y#u)*

negates the occurrence of the action of going to the park; in (3b), 不*bù* negates the speaker's subjective will, for the speaker does not want to go to the park.

Beyond the sentential negative marker 没（有）*méi*(yǒu) and 不bù, in MC negation can also be expressed by means of other negative expressions such as 没（有）人*méi*(y#u)rén 'no one' and 没（有）什么*méi*(y#u)shénme 'nothing' (nominal negation), as illustrated below:

(4) *Méirén* rènshi tā.

nobody know 3sg

'Nobody knows him/her.'

(example from Li 2007:302, ex. (28))

(5) *Méiy#ushénme* shì yǒnghéng de.

not.have.thing/not.have.what is everlasting PART

'Nothing is everlasting.'

In addition to the most important negative makers 没（有）*méi*(y#u) and 不bù 'not', and the argumental negative expressions, MC has several other negative expressions, such as 别*bié* 'don't', 甭*béng* 'don't, needn't', 无*wú* 'not'; 非*fēi* 'non-; not'; and 未*wèi* 'not yet', which have some characteristic use (Ernst, 1995; Li & Thompson, 1981; Lü, 1999; Xiao & McEnery, 2008; Zhuang & Liu, 2011; Zhu, 2011). 别*Bié* 'don't' and béng 'don't, needn't' are negative adverbs typically used in imperatives. 无*Wú* 'not' is always used in written language. 非*Fēi* 'non-; not' is usually used as a negative prefix. 未 *Wèi* 'not yet' is usually used in compound words, such as 未曾*wèicéng* 'not ever'. See the examples below.

(6) *Bié dòng*

not move

'Don't move.'

(7) *Béng zháojí.*

not worry

'Don't worry.'

(8) Tā de yǎnshén wú sīháo wèijù.

she PART eye not a bit fear

'Her eyes showed no fear.'

(9) *fēi* huìyuán

not member

'non-member'

(10) Wǒ *wèicéng* lái guò zhèlǐ.

I not.ever come PART here

'I never come here.'

In Spanish, *no* 'no', *ni* 'not', *nada* 'nothing', *nadie* 'nobody', *nunca* 'never', *ninguno* 'none' etc. can be used to express negation[2]. The most important negative sentential marker in Spanish is *no* 'no', which is usually used prior to verbs. *Ni* 'not' is an adverb and is always used with *no* 'no' or in the construction of *ni....ni*. *Nada* 'nothing' and *nadie* 'nobody' are negative indefinites. *Nunca* 'never' is an adverb. *Ninguno* 'none' can be used as either an adjective or a pronoun. See the following examples:

(11) *No* canta más.

no sing.3.sg more

'She/He does not sing anymore.'

(12) *Ni* Paco *ni* Pepe estudian.

no Paco not Pepe study

'Neither Paco nor Pepe study.'

(13) *No* hay nada.

no have nothing

'There is nothing.'
(14) *No* hay *nadie* en la habitación.
no have nobody in the room
'There is nobody in the room.'
(15) *Nunca* lo haré.
Never it do.1st.pl.
'I will never do it.'
(16) *No* he leído *ninguno* de estos libros.
no have.1 read none of these book
'I have not read any of these books.'

Multiple negative expressions in Mandarin Chinese vs. Spanish

As we have already mentioned, languages are categorized into those that use double negation (DN) and those that use negative concord (NC) in the linguistics literature (Biberauer & Zeijlstra, 2012; Giannakidou, 1998, 2006; Van der Wouden, 1994; Zeijlstra, 2004).

In so-called DN languages, when multiple negative expressions combine within a single clause, the expected interpretation of the sentence is an affirmative reading, as illustrated by the English sentence *She didn't eat nothing*, interpreted (in standard usage) to mean "She ate something".

On the other hand, in so-called NC languages, the expected interpretation of a sentence with multiple negative expressions is a SN reading, as exemplified in Spanish by *Ella no comió nada*, which is interpreted to mean "She ate nothing".

MC has been characterized as a DN language in the literature (Cheng & Li, 1991; Ding, et al. 1999; Lü, 1985). Studies on negation in MC highlight that, in this language, when two negative expressions occur within the boundaries of a single clause, a positive meaning is conveyed (Cheng & Li, 1991; Ding et al., 1999:20; Huang & Liao, 2007; Lü, 1985:247, 1990:243; Zhang, 2012) as a result of applying the law of double negation. That is, each negative expression morphosyntactically corresponds to one negative operator (¬) in the semantic representation. Consequently, when two negative expressions occur in one sentence, the semantics of the sentence includes two negations and they cancel each other out, therefore making the sentence positive (¬¬p # p). Thus, it is important to keep in mind that combinations of two negative expressions, such as 没（有）*méi(yǒu)* 'not' and 不*bù* 'not', lead to DN reading (Ding et al., 1999:201; Lü, 1985:247; Yang, 2011: 209; Zhou et al., 2014:337; Zhuang, 2015:127), as illustrated in the following examples (from Zhou, 2014:337, exs. (10) and (12); Yang, 2011:209, exs. (6)):

(17) a. Tā *bú* huì *bù* lái.
3sg not will not come
'(S)he won't not come.' (= '(S)he will come.')
b. Wǒ *méi(y#u)* *bù* xǐ huān xiàndài yīnyuè.
I not.have not like modern music
'It is/was not the case that I don't/didn't like modern music.' (= 'I like(d) modern music.')
c. Tā *bú*.huì *méi(y#u)* dài qián lái.
3sg not.will not.have carry money come
'It is not the case that (s)he will not bring money with him/her.' (= '(S)he will bring money with him/her.')
d. *W# méi(y#u) méi(y#u)* qù guò Měiguó.
I not.have not.have go PART America
'I didn't not go to America.' (= 'I went to America.')

Spanish has been characterized as a NC language in the literature (Bosque, 1980; Sánchez, 1999). In Spanish, multiple morphosyntactically negative expressions yield the composition of a single semantic

negation. When it combines multiple negative expressions it typically leads to a single negation reading (¬p) in spite of the fact that within the limit of a sentence the negative marker combines with an indefinite expression that can also convey a negative meaning. In Spanish, the combination of multiple negative expressions (negative maker *no*, and n-words such as *nadie* 'nobody', *nada* 'nothing' and *nunca* 'never') generally yields a SN reading. Consider the examples below:

(18) a. No vino *nadie*.

not come nobody

'Nobody came.'

(example from Bosque 1980: 29, ex (1); glosses are mine)

b. Juan no dice *nunca* la verdad.

Juan not say never the truth

'Juan never tells the truth.'

(example from Sánchez 1999: 2569, ex (16b), glosses are mine)

c. No hay nada.

not have nothing

'There is nothing.'

As illustrated above, in example 18(a) the combination of negative expressions illustrates the negative marker *no* 'not' plus the n-word *nadie* 'nobody'; in 18(b) it shows the negative element *no* 'not' plus the n-word *nunca* 'never'; in 18(c) the negative element *no* 'not' plus the n-word *nada* 'nothing'. Even though there are two negative expressions in each sentence, they yield the composition of a single semantic negation. In short, such types of structures with multiple negative expressions, viz., a negative marker *no* plus a n-word, yield a SN reading in Spanish.

Fragment negative answers in Mandarin Chinese vs. Spanish

In the traditional literature, fragment negative quantifiers are claimed to convey a Double Negation (DN) reading when used as fragment answers – e.g., 没（有）人*méi(y#u)rén* 'no one' – to negative questions in the so-called Double Negation languages (Cheng and Li, 1991; Ding et al., 1999; Lü 1985). In contrast, negative indefinite expressions are claimed to convey a single negation (SN) reading when used as fragment answers to negative questions in the so-called Negative Concord (NC) languages. However, the differences in the interpretation of fragment answers in NC versus DN languages is not clear-cut. The SN interpretation of fragment n-words as answers to negative questions has been demonstrated in DN languages such as Standard English (Blanchette, 2017; Blanchette & Nadeu, 2018). A DN interpretation for n-words when used as fragment answers to negative questions has also been shown under certain prosodic and gestural conditions in NC languages such as Catalan, Spanish (Espinal & Prieto, 2011; Espinal et. al, 2016; Prieto et. al, 2013) and French (Depréz & Yeaton, 2018).

In Mandarin Chinese, when negative fragments such as 没（有）人*méi(y#u)rén* 'no one' are used as answers to negative questions in negative question-answer pairs, the default interpretation of fragments is a DN reading. Consider the example below:

(19) Q. Shéi *méiy#u* zài sùshè?

who not.have at dormitory

'Who is not in the dormitory?'

A. *Méiy#urén*.

not.have.people

'No one.'

=A1. *Méiy#urén* (*méiy#u* zài sùshè.)

not.have.people not.have at dormitory

'No one is not in the dormitory.'

The default interpretation of the fragment answer in (19A) to the question in (19Q) is that it conveys a positive reading, because the fragment argumental negative expression of the fragment answer has to combine with the negative operator of the elliptical negative question. In this situation, the two negative expressions (i.e. the fragment argumental negative expression *méiy#urén* 'no one' and the negative sentential marker *méiy#u* 'not') cancel each other out, resulting in a DN interpretation.

In contrast, in Spanish, when the n-words such as *nadie* 'nobody' are used as answers to negative questions, they are most commonly interpreted as expressing SN meanings (Espinal & Prieto, 2011; Espinal et. al, 2016; Prieto et. al, 2013). This is illustrated in (20).

(20) Q. ¿Quién *no* llevaba gafas? (Spanish)
who not wore glasses
'Who wasn't wearing glasses?'
A. *Nadie.*
nobody
'Nobody.' = (Nobody was wearing glasses.)
(example from Espinal and Tubau 2016:44, ex. (6))

Based on the assumption that n-words in Romance languages have underspecified formal features (Espinal, 2000; Martins, 2000; Rooryck, 1994, van der Wouden & Zwarts, 1993), the negative meaning of fragment n-words in (20A) is postulated to yield SN interpretations because it stands in a sort of syntactic agreement or semantic dependency with the negative marker *no* in the question. That is, fragment n-words have been argued not to encode a negative logical operator in NC languages. The fragment word in (20A) is expected to be interpreted as conveying SN (Espinal, 2000).

However, interestingly, an increasing number of studies in the literature on both Romance and Germanic languages show that meaning shifts are possible from expected SN readings to unexpected DN interpretations, and vice versa (Prieto & Espinal, 2020; de Swart, 2020).

Espinal and Prieto (2011) show the interaction between fragment n-words and a contradictory contour (a rising pitch accent associated with the stressed syllable followed by a low-rising boundary tone: L+H* L! H% in Cat_ToBI and Sp_ToBI). Prieto et al. (2013) and Espinal et al. (2016) show for both, Catalan and Spanish, the role of congruent and incongruent gestures, and confirm the role of the contradictory intonation contour not only for fragment n-words but also for preverbal n-words, with or without the co-presence of a sentential negative marker. Depréz and Yeaton (2018) show similar results for French, according to which the combination of a specific syntax and a special prosody can yield a DN reading in this language as well.

Blanchette (2017) shows that, under a specific syntactic structure, a SN reading is preferred by Standard English native speakers. Blanchette and Nadeu (2018), following Espinal and Prieto (2011), confirm experimentally the hypothesis that Standard English is a language that assigns to both SN and DN interpretations negative indefinite fragment answers that are replies to negative questions, being DN readings prosodically marked with a higher fundamental frequency (f0) than their SN negation counterparts.

Experimental studies in Mandarin Chinese vs. Spanish

Experimental study by Prieto et al. 2013

Prieto et al. (2013) investigate the extent to which prosodic and gestural patterns affect the interpretation of DN in two Negative Concord languages, Catalan and Spanish. However, in this study I will only focus on Spanish.

Some audiovisual recordings were first recorded by four Spanish native speakers. Participants were asked to answer negative questions using a target word *nadie* 'nobody,' after they were provided with a context and a question. They were asked to express either a negative or a positive meaning using *nadie* 'nobody'. Some representative audiovisual recordings were selected for the next perception experiment.

A total of 30 native Spanish speakers were recruited to participate in the perception experiment. The perception experiment consists of three modalities: auditory-only (AO), visual-only (VO), and audiovisual (AV). Participants were provided with a context and a question, and then were asked to listen to or watch a target answer *nadie* 'nobody' to the question. The task of participants is to indicate whether the answer elicits a single negation or a double negation meaning.

The results of this experimental study show that in the AO modality, participants preferred a DN interpretation when the negative word was produced with a contradictory intonational contour; in the VO modality, participants preferred a DN meaning when the negative word was produced with specific denial gestures; in the AV modality, DN interpretations were preferred when the negative word was produced with prosodic and gestural patterns. In conclusion, this study points out that DN meaning of the negative word *nadie* 'nobody' is possible in a so-called NC language in the condition of specific prosodic and gestural patterns.

Experimental study by Li 2019

In 2019, I investigated the interpretation of fragment argumental negative expressions as answers to negative questions in MC.

An audio production experiment was first conducted to investigate whether native MC speakers can produce fragment argumental negative expressions that convey either a SN meaning or DN meaning, and which of these prosodic correlates are for SN and DN respectively.

A total of 30 participants were recruited. After reading a context and a question, each participant was asked to answer the question spontaneously and then answer it using fragments (没（有）人 *méi(yǒu)rén* 'no one' or 没（有）什么 *méi(yǒu)shénme* 'nothing').

The results show that MC speakers prefer to reply to negative wh- questions in SN negations by means of negative sentences with a negative marker (such as *méi(yǒu)rén dào le* 'No one has arrived.') rather than with a fragment argumental negative expression (such as *méi(yǒu)rén* 'no one'). When used as fragment answers to negative wh-questions, the two negative expressions were produced with different prosodic correlates in DN contexts than in SN contexts, *éiyǒu* segments[3] being more emphatic when associated with a DN meaning than with a SN meaning. Specifically, *éiyǒu* segments in the DN contexts were found to display a shorter duration, a higher mean pitch, wider pitch variation, and a higher maximum pitch than in the SN contexts.

The second production experiment aimed to investigate whether MC speakers use gestural strategies when expressing a SN or a DN reading. A total of four participants were recruited. They read a context, listen to the question, and then answer the question using fragments. However, results revealed that gesture strategies in this experiment were not significant.

The third audio perception experiment was conducted to investigate whether native MC speakers perceive certain prosodic/acoustic correlates of fragment argumental negative expressions as more appropriate to certain contexts. A total of 101 participants were recruited. After reading a context and a question, they listened to two recordings (SN or DN). Then they were asked to choose the one they felt to be more appropriate and choose the more salient interpretation of their audio choice. The result shows that native speakers of MC perceive differences between audio recordings of fragment negative expressions, depending on their prosodic/acoustic correlates.

Mandarin Chinese vs. Spanish

The analysis of this section is based on a previous experimental study by Prieto et al. (2013), and the experimental study on Mandarin Chinese conducted by Li (2019). The aim of the current research is, first, to compare the prosodic and gesture strategies used by native speakers in the expression of fragments to negative questions in Mandarin Chinese and Spanish. Second, to question the parametric division between DN and NC languages.

Results in Spanish show that, when isolated n-words are uttered with a contradiction intonation (L+H*L! H%), DN interpretation is preferred. The result in MC shows that the fragment answers are more emphatic (higher mean pitch, wider pitch variation, a higher maximum pitch and larger rising pitch excursion) when expressing a DN meaning. The results from these two experimental studies show clear evidence that prosody plays an important role in the interpretations of isolated n-words/negative fragment answers in both NC and DN languages.

Results in Spanish shows that gesture strategies (shrugging, head nod and head shake) also have an important role in the interpretation of DN readings of n-words. However, no significant gesture patterns are found in MC.

The most important common finding from these two studies is that a DN interpretation of n-words of a negative question is possible in a NC language, and that a SN interpretation of a negative fragment answer to a negative question is possible in a DN language. The results support the hypothesis that the parametric division between DN and NC languages is not clear-cut.

Conclusions

In this study, the basic expressions of negation in MC and Spanish were introduced. In the traditional literature, MC has been categorized as a DN language and Spanish has been categorized as a NC language. We have compared the interpretation of multiple negative expressions and fragment answers to negative questions in these two languages.

The default interpretation of multiple negative expressions within a single sentence is DN and SN in MC and Spanish respectively. In MC, when multiple negative expressions co-occur in one sentence, they generally cancel each other out to yield a DN reading (--p # p). In contrast, in Spanish, when multiple negative expressions are combined in a sentence, the sentence typically leads to a single negation reading ($\neg$p), in spite of the fact that, within the limit of a sentence, the negative marker combines with an indefinite expression that can also convey a negative meaning.

The default interpretation of a fragment answer to a negative question in MC is DN. For instance, to answer a negative wh- question such as *shéi méiy#u qù jiàoshi?* 'who didn't go swimming', the default interpretation of a fragment answer such as 没有人 *méi(y#u)rén* 'no one' is DN, in which the fragment answer is interpreted to mean 'no one didn't go swimming', that is, 'everyone went swimming'. The default meaning of a fragment answer to a negative question in Spanish is SN. For example,

to answer a negative wh- question such as ¿quién no ha comido queso 'who didn't eat cheese?', the default interpretation of a fragment answer such as *nadie* 'nobody' is SN, in which the fragment answer is interpreted to mean 'nobody ate cheese.'

However, the distinction between DN and NC is not macroparametric; this is mostly due to different readings attributed to sentences that show different syntactic and prosodic patterns. The two experimental studies show that a DN and a NC interpretation is possible in Spanish and MC respectively. At the same time, they show that both verbal and non-verbal strategies also have an important role in the interpretation of negation in both MC and Spanish. A DN interpretation in Spanish is preferred when fragment n-words are associated with a contradiction intonation; fragment answers in MC expressing a DN meaning are more

emphatic. Gestures (shrugging, head nod and head shake) are found to be associated with DN reading in Spanish. The interaction between negation and gestures in MC remains to be studied in the future, considering different circumstances and conditions.

To sum up, the two experimental studies both indicate that unexpected DN or SN readings are possible under certain conditions in Spanish and MC respectively. Consequently, the division between DN and NC languages is called into question. In addition, DN is prosodically marked in both MC and Spanish. Further studies on the interpretation of negation across languages and the interactions between verbal and non-verbal cues are expected in the future.

Acknowledgments

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Notes

[1] An anonymous reviewer of this article also mentioned another difference between 不*bù* and 没（有）*méi(y#u)*. 不*bù* is a stative verb, activity verb, and modal verb. 没（有）*méi(y#u)* for anything marked with aspect '在*zai*' is for progressive, '了–*le*' for perfective, '过–*guo*' for experiential, and '着*zhe*' for durative (Li and Thompson 1989).

[2] An anonymous reviewer of this article indicated that Spanish no doesn't distinguish what is being negated 'verb' or 'noun' – it is more like a general negator.

[3] Here *éiy#u* segments are from *méiy#urén* and *méiy#ushénme*. The region of occurrence of the first vocalic sequence of the two negative words *méiy#urén* and *méiy#ushénme* (i.e., *éiy#u*) was delimited for specific reasons.